

activity. Graduate students from the research group served as teaching assistants, bridging classroom learning with ongoing research. This collaborative CURE not only contributed to the research community but also provided unique opportunities for graduate student development and expanded undergraduate experiences in CUREs. Assessment data demonstrate that the collaborative CURE approach not only enhanced students' scientific skills but also increased their awareness of STEM's importance. Student feedback highlighted the transformative impact of having external interest in their projects, showcasing the effectiveness and value of the MCC-supported CURE model.

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Abstract 1599

Development and Use of Literature Guided Assessments (LGAs) in an OER to Teach Biochemistry and Molecular Biology

Henry Jakubowski, *College of St. Benedict/St. John's University*

Kristen Procko, Arthur Sikora, Emily Schmitt Lavin, and Subhasish Chatterjee

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A comprehensive understanding of biochemistry and molecular biology should empower students to address today's most pressing global challenges (GCs). However, the common types of assessment questions in biochemistry texts do not provide the context or training to encourage students to apply concepts broadly to world issues. The typical end-of-chapter problems presented are not often summative across chapters and are less likely to focus on research findings. Moreover, most do not help students read and analyze the scientific literature, an arguably difficult task that is critical to understanding and approaching solutions to GCs. To address these shortcomings, we have developed a new approach for assessment questions and incorporated them in the online, multi-volume Open Educational Resource (OER), *Fundamentals of Biochemistry LibreText*. These Literature-based Guided Assessments (LGAs) are linked to the primary literature and designed to guide students in reading and understanding research papers. Most of the LGAs are also linked to the leading GCs that face the world today. We highlight an LGA on the Voltage-gated Sodium Channel that was developed through a summer workshop sponsored by BioMolViz and used in a classroom setting in the following fall semester. We describe the development and implementation of the activity, along with preliminary data from an introduction to protein modeling course. We also have written LGAs that focus on Trauma and Health as well as Carbon Capture Using Carbonic Anhydrase (centered on the GCs of Trauma and Climate Change, respectively), and two on Visual Images and Data (focused on Information Integrity). Importantly, these topics encourage students to think past the typical biomedical questions that can become the focus of courses targeted to premedical students. We invite members of the community to use these LGAs in their classrooms and propose GCs of interest for future modules.

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